

MŰHELYTANULMÁNYOK

DISCUSSION PAPERS

MT-DP – 2011/5

# **Varieties of System Transformations and Their Structural Background Based on the IPS Model**

MÁRIA CSANÁDI

Discussion papers  
MT-DP – 2011/5  
Institute of Economics, Hungarian Academy of Sciences

KTI/IE Discussion Papers are circulated to promote discussion and provoke comments.  
Any references to discussion papers should clearly state that the paper is preliminary.  
Materials published in this series may subject to further publication.

Varieties of System Transformations and Their Structural Background  
Based on the IPS Model

Author:

Mária Csanádi  
research advisor  
Institute of Economics - Hungarian Academy of Sciences  
E-mail: csanadi@econ.core.hu

February 2011

ISBN 978-615-5024-36-8  
ISSN 1785 377X

# **Varieties of System Transformations and Their Structural Background Based on the IPS Model**

Mária Csanádi

## **Abstract**

This study is the theoretical chapter of a planned book. This book, aims to contribute to the theoretical foundations of similarities and differences in the transformation of party-state systems. Analytical framework of system transformation is based on the extension of the Interactive Party State model (Csanádi, 2006) where specifics of the structure and operation of party-state systems and structural background of their disparities were described and analyzed. Self-similarities and disparities of transformation and path-dependency of the variety of systemic outcomes are assigned to structural characteristics of power distribution of party-state systems interpreted as networks. The empirical part of the book uses the Chinese case to test this theory, measuring the dynamics of system transformation, the consequences of short- and long-term external adaptation pressures on the system transformation and long-term consequences of the short-term reactions to these pressures and their spatial disparities. This research was supported by the National Research Foundation in Hungary.

**Keywords:** system transformation, economic transformation political transformation, sequence of transformation, disparities of transformation, varieties of system outcomes, party-state network

**JEL:** P2, F5, P21, P26, P30

## **Acknowledgement:**

Many thanks to Ferenc Gyuris, who helped me in finalizing my figures and tables.

# **Rendszerátalakulások változatai és ezek szerkezeti háttere az IPS-modell alapján**

Csanádi Mária

## **Összefoglaló**

E tanulmány egy tervezett könyv elméleti fejezetét tartalmazza. A könyv a pártállamok átalakulásának hasonlóságainak és eltéréseinek elméleti alapjait kívánja lefektetni. Az átalakulás továbbfejleszthető analitikai keretét az interaktív pártállami (IPS) modell adja (Csanádi 2006), amely korábban a pártállami rendszerek szerkezeti és működési sajátosságait, valamint azok eltéréseinek szerkezeti hátterét elemezte. Az átalakulás mögött sejthető hasonlóságokat és eltéréseket, valamint a kialakuló rendszerek változatossága mögött rejlő kényszerpályákat a modell a hatalomeloszlás szerkezeti sajátosságainak tulajdonítja. Kína példája alapján empirikusan is teszteli az elméletet, méri a rendszerátalakulás dinamikáját, a rövid és hosszútávú külső adaptációs nyomások következményeit, valamint a belső reakciókat és ezek térbeli eltéréseit.

**Tárgyszavak:** rendszerátalakulás, gazdasági átalakulás, politikai átalakulás, az átalakulás sorrendje, az átalakulás eltérései, a kialakuló rendszerek változatai, pártállami háló

**JEL kódok:** P2, F5, P21, P26, P30

**Köszönetnyilvánítás:**

A kutatás az OTKA támogatásával készült.

## INTRODUCTION

Transformation of party-state systems has been a hot topic for more than a decade in comparative literature (e.g. Kornai, 1986, 1989, 1992, 1994, 1996a,b, 2000a,b; Aslund, 1993; Qian and Xu, 1993; Gelb, et al. 1994; Wu, 1994; Walder, 1995; Denglian, et al., 1997; Gelb, et al. 1994; Gomulka, 1994; Wu, 1994; Walder, 1995, Csanádi, 1995 Sachs and Woo, 1997; Qian, 1998; Tong, 1997; Woo, 1998; Hellman, 1998; World Bank, 1998; Carothers, 2002). Despite the permanent economic and political problems these transformations caused and the large range of systems they developed into, the scientific interest on the topic faded away, giving way to the actual problem of varieties of post-soviet capitalisms (e.g. Bunce, Roeder, 1994; 1995, 1999, 2000; David, 2000; Bandelj, 2003; Gans-Morse, 2004; Knell, Mark and Martin Srholec, 2005; Buchen, 2005; Coates, 2005; Kornai, 2003, 2006, 2008a,b; Havrylyshyn, 2006; Lane 2007; Hanson, 2007; Mizobata, 2008; Frane et al, 2009; Ray, 2009; Degenkolb, 2010) and later to global crisis.<sup>1</sup> It is not unusual that topics suddenly emerge and sink into oblivion without theoretically solving substantial issues as new dramatic events arrive. The purpose of this chapter is to connect operation and transformation of party-states and varieties of the new-born systems. This chapter offers a new comparative framework, that of the Interactive Party-state model to analyze the transformation, path-dependencies and varieties in the systemic outcomes of transformation of party-states. We introduce the concept of system transformation based on the model. This concept implies the retreat of the party-state network as a social system and the emergence of a new system outside of it, both nested in global dynamics. We also reveal the strong interaction of external and internal constraints – inducing, accelerating, or slowing down, the process of transformation. We point to the possible factors that structurally influence the characteristics of transformation and define path-dependency of possible system outcomes. Finally we make some initial efforts to interpret self-reproduction, changes, transformation and outcomes as a social system evolution.

---

<sup>1</sup> Both the literature of transitology and that of the varieties of capitalism from the point of view of system transformation will be analyzed in the first chapter pre-empting and introducing the theoretical analysis.

## **THEORETICAL FOUNDATIONS OF THE CHARACTERISTICS OF SYSTEM TRANSFORMATION**

We have implemented a comparative analytical model that describes the structure, operation and transformation of party-state systems. This model is called Interactive Party-state model (IPS) (Csanádi, 1997, 2006). The model is based on the dependency and interest promotion possibilities among party- state- and economic decision-makers during the decision-making process. The model incorporates the interactive network these relationships form, the main elements, main connecting principles and main operating principles of this network. It describes the selection system in the distribution of resources based on the political rationality of the structure and operation of the network. It analyzes the adapting behavior and interest of decision-makers that leads to the cohesion and self-reproduction of the network. It also deals with the main endogenous structural and behavioral traps embodied by the political rationality of economic behavior during self-reproduction of the network that incites system transformation. The model describes the above structural and operational characteristics as self-similar traits in space, time and aggregation levels. It also describes the structural background of the disparities in self-reproduction and transformation, based on the different distributions of power within the network despite self-similarities. These different distributions of power will have an impact on the different pace, sequence and conditions of system transformation and consequently, on the varieties of the emerging new system.

Next, we shall deal with the transformation from the approach of the IPS model by clarifying the basic concepts of the model and its functions. These concepts will gradually drive the reader to the analytical description of system transformation and its disparities in time, space and different level aggregations of the network. We shall also draw attention to some aspects of social system evolution from the approach of self-reproduction, change, and transformation of party-state systems.

### *Operation:*

the process of self-reproduction of the system

### *Self-reproduction:*

Self-reproduction is the process of resource extraction, resource attraction and resource allocation (distribution) in the system in the given distribution of power.

### *Distribution of power:*

Distribution of power is the distribution of the bargaining capacities (resource extracting, resource attracting and allocating capacities and resisting capacity of actors to intervention) within the party-state power network.

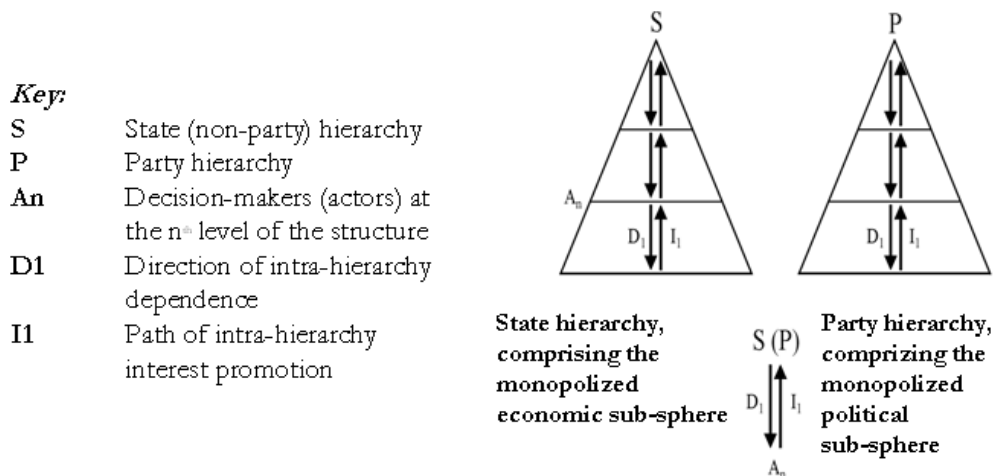
### *Party-state power network:*

The network is formed by the dependency and interest promotion relationships between party, state and economic decision-makers during the decision-making process. Relationship is institutionalized through the power instruments of the party that interlink individual non-party and party decision-makers. The model defines three overlapping and intertwined layers of relationship among decision-makers that form the party-state structure:

(1) The first layer is the party hierarchy monopolizing the political sub-sphere and the state hierarchy with the state-monopolized economy that allows for the monopolized extraction and distribution of resources (see Fig. 1)

*Figure 1.*

### **First layer: the formal hierarchies in the party-state structure**



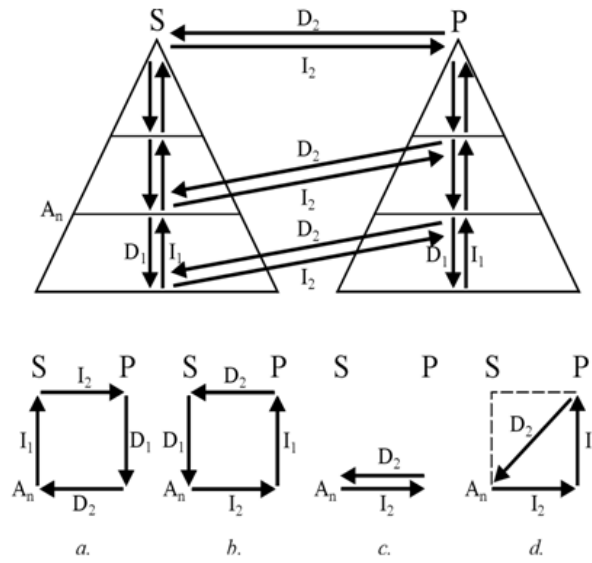
(2) The second layer shows that the two separate hierarchies are interlinked by the party's instruments of power that infiltrate the boundaries of non-party institutions and overlap the decision-making process through positional structure, activity structure, organizational structure and individual decision-makers through their party discipline. These interlinking dependency lines at the same time allow for the interest promotion of those embraced by them, introducing an inequality of interest promotion among decision-makers attached to and deprived of these lines (see Fig. 2).

Figure 2.

### Second layer: the interlinking threads

#### Key:

S	State (non-party) hierarchy
P	Party hierarchy
$A_n$	Decision-makers (actors) at the $n^{\text{th}}$ level of the structure
D1	Direction of intra-hierarchy dependence
D2	Direction of cross-hierarchy dependence
I1	Path of intra-hierarchy interest promotion
I2	Path of cross-hierarchy interest promotion

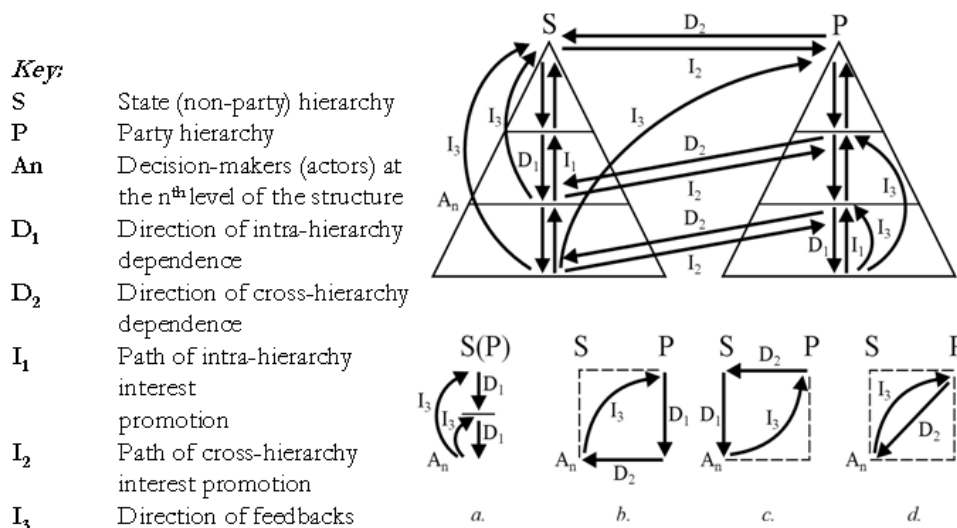


(3) The third layer is formed by the institutionalized practice that decision-making process for some, strategically more important, actors may be short-cut both within each hierarchy and also across state-to-party hierarchy. Shortcut is created when actors at lower levels of the hierarchy participate in higher level decision-making bodies, or are monitored selectively by higher levels. Through short-cuts new inequality of interest promotion is introduced: those privileged by them may meet decision-makers of higher levels whom otherwise would never meet in their formal position, influence decisions, accumulate new short-cuts and prepare to unavoidable impacts (see Fig. 3).



Figure 3.

### The third layer: the short-cuts in the decision-making process



#### Principles of operation:

The three intertwined layers will form the party-state network. The structure reveals its principles of connection: a) dependency lines interlinking the party and non-party structures may only originate from party hierarchy, since they are the instruments of its power. b) Cross-hierarchy short-cuts may only originate from non-party hierarchies, since shortcuts form feedback loops through interlining dependency lines originating from the party.

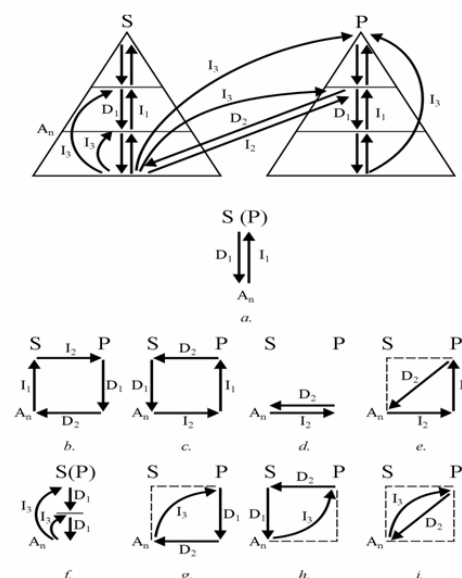
We may also define the principles of operation based on the specifics of the structure: since all actors hold hierarchical dependency lines but only actors in the party hierarchy hold dependency lines interlinking individual decision-makers in all other sub-spheres, dependencies, interest promotion and resource extraction and allocation are directly or indirectly politically monopolized.

Consequently, the party, originally as one entity in one sub-sphere (political) through its power instruments permeating and monopolizing non-party subfields and defining its internal inequalities develops into a *politically monopolized power network*. Figure 4 depicts the characteristics of this network.

Figure 4.

### Structural characteristics of the party-state network

- Closed channels
- Uni-directional but multi-threaded dependencies
- Direct connections of party and non-party fields and thus sensitivity to each others' decisions
- Atomized actors (weak horizontal connections)
- Multi-threaded interest promotion
- Structural inequalities in dependency, interest promotion and resisting capacity through interlinking lines (D2; I2) and
- Short-cuts/feedbacks (I3)
- Bargaining capacities and formal positions differ
- Different bargaining positions will provide the distribution of power of the structure



Note: S= state hierarchy, P= party hierarchy, An= Actor at level n, D1= direction of intra-hierarchy dependence, D2= direction of cross-hierarchy dependence, I1 direction of intra-hierarchy interest promotion I2= direction of cross hierarchy interest promotion, I3 short-cuts forming feedbacks within and across hierarchies.

### Structural motivations of behavior:

Actors in this structure are in dual position: they are simultaneously holders of and captured by dependency lines. As monopolistic holders of the lines, they are able and simultaneously forced to intervene – otherwise losing bargaining position. As embraced by dependency lines they are exposed and simultaneously interested in keeping and multiplying dependency threads for greater chances for maneuver in interest promotion and accommodate to expectations– otherwise losing bargaining position. Bargaining capacities and positions are difficult to measure or even judge. The sheer size and lack of transparency of the structure strengthens even further the structural atomization of those actors already tied individually to the interlinking threads: unknown and indiscernible forces lie behind and face each actor. This changeable and indeterminate power will be called the *phantom force* (Csanádi, 1997). Because of the existence of the closed channels and the phantom force, decision-makers are unable with any certainty to judge either their own strength or that of their allies or, indeed, the real power of their opponents. Because of the phantom force, therefore, the bargaining positions and bargaining capacities of each actor in relation to all the others are always uncertain. Despite the dependence and the unequal

capacities for interest promotion within the whole system, this uncertainty demands of every single decision-maker constant vigilance, activity, and adaptability. Even if this position proves relatively stable, each actor has to struggle constantly to keep it so. Therefore, they are compelled to take good care of existing connections and strive to create new ones.

The content of the phantom force in any given decision-making situation depends on a number of things: the individual decision-maker's feedback loops that are active at any given moment; the current number of allies, the density and quality of their feedback connections and the level of their accumulation; and, finally the mystified nature of the structures themselves. The phantom force of an actor or an institution behind the actor is always as large as its environment is willing - or is forced - to believe.

Capacity and force intervene, exposure and interest together interacting with phantom-force ensure the *politically rational motivations of economic behavior* for self-reproduction of the bargaining position of an actor and thereby the cohesion and reproduction of the whole network. Economic rationality of actors is steered by the political rationality of their behavior.

#### *Constraints of self-reproduction of actors and those of the structure as a whole:*

Actor's dual position implies dual function in one entity: as holder of the dependency lines he is an intervener; and as embraced by those he is a pleader influencing his capacity of self-reproduction. One single actor as holder (intervener) of the lines has resource extracting and redistributing capacity and as embraced by those (pleader), has resource attracting and resisting capacities to interventions.

These factors together will provide the structural constraints of the capacity for self-reproduction of an actor. Constraints however are not uniform: they depend on the actors' bargaining capacity within the network resulting from accumulated interlinking lines and shortcuts reinforced or weakened by phantom force. Thus, constraints of self-reproduction may be *selectively hard or soft*. Selectively soft constraints in bargaining capacities and politically rational concerns of distribution will define both the actors' level of fitness for selection during self-reproduction and the direction of fixed paths of resource and other privilege distribution within the network.

### *The structure and its traps in self-reproduction:*

In this network both structural and functional characteristics are based on politically rational concerns. Structurally, political concerns determine the rationale of connecting other than political subfields using power instruments for connection; politically rational are the concerns of in-built inequalities of dependency and interest promotion and the principles of connection and operation providing a politically monopolized power network. Based on the politically rational construction of the structure and the principles of operation, also factors of self-reproduction will be based on political rationality. Such are: the nature of dependencies, interest promotion and resource extraction and distribution, the bargaining capacities, the phantom-force, the criteria of selection in allocation, selectively soft/hard reproduction constraints of self-reproduction, the fixed paths of resource distribution and the hardening reproduction constraints of the whole network.

Structural and operational characteristics will conclude in the *political rationality of economic motivations and behavior* (accumulating feedbacks and drive for growth, adapting behavior to politically rational expectations to keep or improve bargaining capacity, etc). Consequently, both constraints of and motivations for efficiency in self-reproduction will be lacking individually and for the whole structure. Politically rational fixed paths of distribution and selective softness (based on increased bargaining capacities in resource attraction and resisting extraction) and accommodating politically rational economic behavior of actors from time to time will lead to the *structural shortage* of resources to extract and distribute. Shortage will induce hardening structural constraints of self-reproduction of the whole network result in the loss of cohesion of the structure.

Concluding the above, politically rational concerns and economic behavior form traps in the process of self-reproduction since structural rather than economic constraints – that is, the given distribution of power -- determine the hardness or softness of reproduction, both for individuals, units and the network as a whole. Thus, the process of self-reproduction is prone to *self-consumption*. Internal structural constraints are not insulated from external constraints but strongly interact with those influencing self-reproduction.

### *External constraints:*

Definition of “external” in our approach means both the domestic sphere outside the network and international conditions reduced by other countries that actually form the higher aggregation levels of the given level unit. In the case of the east European party-states Moscow was a supra-unit of their network, tied by multiple institutionalized political, military and economic threads of different strength and density at different

periods and countries. Moscow formed their self-similar higher level aggregation. Similar institutionalized power relations were existent, though much weaker, scarcer and constrained in the Stalinist and Hrushchev period between Moscow binding China, Vietnam and North Korea. External constraints may be soft and may be hard in relationship to the network, exerting growing competitive pressure (hardening) or relaxing competitive pressure and conditions of resource acquisition (softening) for the reproduction of the network.

#### *External and internal constraints in self-reproduction:*

We have defined internal constraints of reproduction as structural, while external ones as efficiency (or budget) constraints. Structural and efficiency constraints are strongly interdependent through the dynamics within and outside the network. Internally, party-state systems according to the model are very flexible: they translate (form fit) external impact to the given distribution of power. This process will prevail until budget constraints exerted by the external environment (e.g. loans, FDI, competitive pressures, export demand, import conditions) and reproduction constraints defined by internal power distribution are soft for the self-reproduction. If structural constraints in self-reproduction are met and resources from higher aggregation levels flow poorly, structural constraints become hard and exposure to external factors arise and importance of external constraints exerted from outside the net emerges. In case resources from outside of the net fall short, external impact will exert harder constraints on the self-reproduction of the network.

#### *The network as a social system:*

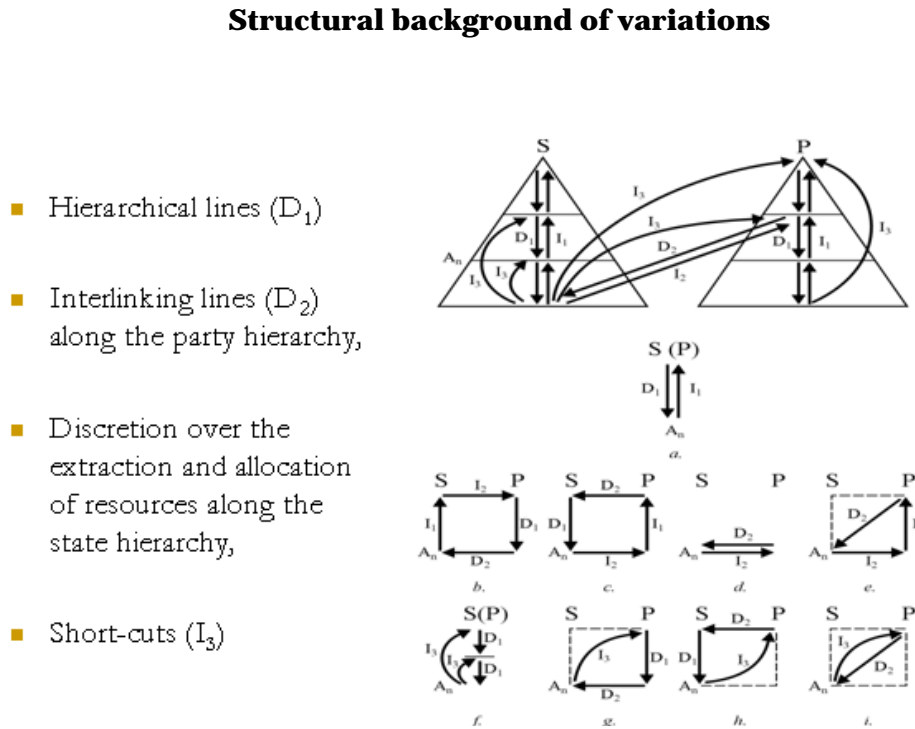
The above structural and operational features and their strong interaction with external constraints are self-similar in time, in space and in different aggregation levels of the structure, and induce self-similar behavior and interest for selection, allocation and self-reproduction and involve the same structural and operational traps during reproduction. In such self-similar structures the party as one political entity in one sub-field, (political), monopolizes its subfield. From the position of political monopoly, the party stretches out its instruments of power, and embraces and infiltrates all other sub-spheres of the society influencing the decision-making process by overlapping positional, activity and organizational structures and individual decision-makers. Political rationality of infiltration determines the specifics of inequalities in bargaining and reproduction capacities and thereby actors' behavior in time, in space and in different levels of aggregation. The evolving politically monopolized institutional power structure that bears the above self-similar structural and functional characteristics operates as *one specific kind of social system* that we call party-state systems.

However, despite of self-similarities party-states operate, reproduce themselves and transform differently. There is a structural explanation of those differences offered by the IPS model.

*Structural background of the variations in the distribution of power:*

Different bargaining positions will provide the distribution of power of the structure. Variations in power distribution depend on: (1) the strictness of decisions within the hierarchies, (2) the level of centralization or decentralization of discretions over extraction and distribution of resources along the state hierarchy, (3) the level of centralization or decentralization of the discretion of holding interlinking dependency lines along the party hierarchy, its density, its outreach to different fields, sectors, institutions and its depth in the place of outreach, and finally, (4) the level of origin, the level of outreach in the hierarchies, the density and the accumulation of short-cuts, be they within and/or across state-party hierarchy. These will together define the differences in the actors' resisting capacity to interventions and their different resource extracting, attracting and allocating capacities within the network (see Fig. 5).

*Figure 5.*



*Patterns of power distribution in the network:*

Based on the characteristics of power distribution we may define patterns according to (1) the level of centralization or decentralization of interlinking lines on different levels of the party hierarchy; (2) the centralization or decentralization of resource extracting and allocating capacities along the different levels of the state hierarchy; (3) and the quantity and strength of short-cuts providing the extent of resisting capacity and resource attracting capacity within the network. Based upon the variations of the above three elements (interlinking lines, resources and short-cuts) three such patterns are defined: the self-exploiting, self-disintegrating and self-withdrawing patterns

These three patterns will have characteristic distributions of power, characteristic instruments for reproducing the power structure and characteristic ways of transformation. There is specific a historical “continuity” among the three patterns. Originally only the first, self-exploiting pattern existed in all party-states with variations within the same pattern. The other two patterns were formed as a result of the transitory collapse of the first pattern in certain party-states where this latter for different reasons could not be any more restored. (see Table 1)

*Table 1.*

**Patterns of power distribution in party-states**

TRAITS	SELF-EXPLOITING (e.g. Romanian)	SELF- DISINTEGRATING (e.g. Hungarian)	SELF-WITHDRAWING ( e.g. Chinese)
<i>Distribution of power</i>	Centralized extraction and distribution, centralized interlinking threads, few feedbacks	Centralized extraction and redistribution, centralized (or decentralized) inter-linking threads with strong economic feedbacks	Partially decentralized extraction and redistribution and either centralized or decentralized inter-linking threads with economic feedbacks
<i>Relationship between units and sub-units</i>	Faint attracting and resisting capacity	Selectively strong attracting and resisting capacity	Selectively strong attracting and resisting capacity
<i>Constraints of self-reproduction</i>	Rarely hard	Occasionally hard	Frequently hard
<i>Mode of resource acquisition</i>	Forced resource redeployment	Resource mobilizing (decentralizing) reforms	Resource mobilizing and resource creating reforms

### *Internal (structural) constraints in patterns during self-reproduction:*

Table 1 also demonstrates that self-reproduction of different patterns meet hardening structural constraints with different frequency. In other words, frequency of meeting structural constraints is pattern-conforming. The order of the three patterns is according to increasing resisting capacity within the network and thus, increasing frequency of meeting structural constraints. The more decentralized resource extracting and attracting capacities and interlinking threads are, and the stronger the feedbacks, the higher the resisting capacity of actors within the structure and the sooner the whole structure will meet hardening reproduction constraints. The combination of these varieties will at the same time, define the scope of the space outside the net. The more frequently the system meets reproduction constraints, the higher the need for attracting resources from the fields external to the net.

Theoretically, in self-exploiting pattern there is no field outside the net domestically and the net embraces the maximum possible of the extractable resources. Therefore, structural constraints in the exploitation of resources will approach natural constraints. Concrete natural conditions, economic policy and resources from higher aggregation will define the time span of soft reproduction constraints of the whole structure. When natural constraints are met and resources from higher aggregation flow narrowly, international factors and budget constraint will play an important role. Adaptation may end up in acquiring new resources from outside the net, or restructuring status quo in the net or even transitory of definite collapse.

In the self-disintegrating pattern resource exploitation cannot reach natural constraints in consequence of stronger resisting capacity within the pattern. Therefore, structural constraints are reached earlier than in self-exploiting pattern. If structural constraints are met and resources from higher aggregation flow poorly, reproduction constraints within the pattern become hard and exposure to external factors arise and importance of soft or hard budget constraints exerted from outside the net emerges.

In self-withdrawing pattern there is expanded resisting capacity and lower exposure to central distribution within the net owing to shortcuts and alternative resource extraction capacity within the net at local levels. Consequently, structural constraints are met the fastest among the three patterns and also the frequency of hardening reproduction constraints is the highest. The choice of relying on external factors becomes the most critical in this pattern.

The hardening of reproduction constraints may attain the whole aggregation and induce change. But it may start at lower aggregation levels and may propagate selectively across different levels of aggregation and in space at one aggregation level. Selective



propagation of hardening reproduction constraints does not necessarily hit the whole aggregation in case of economic growth outside the net.

*External constraints and pattern sensitivity in self-reproduction:*

Interdependency of the external and internal dynamics is pattern-dependent. Patterns of power distribution reflect the extent of flexibility of internal adaptation to external impacts and subsequent adaptation drives. Patterns demonstrate different degrees of sensitivity and adaptability to the environment in strong interaction with internal power distribution and consequent structural constraint of self-reproduction: the softer the reproduction constraint, the more flexible from inside, and the less need for adaptation to external impacts.

Both internal and external conditions may end up in hardening or softening reproduction constraints in differing times or simultaneously. Depending on their sequence of hardening or softening internally and externally and their respective combination of simultaneous or sequential impact, they may work in adverse or parallel directions. Different conditions may contribute to different drives of adaptation.<sup>2</sup>

*Time-span of simultaneous external and internal constraints:*

Simultaneous external and internal constraints may last for short- or long-term. Short-term adaptation pressures may conclude in the transitory or definite restructuring of the power network during self-reproduction. When hardening reproduction (structural) constraints from within and hardening economic constraints exerted from outside the network occur simultaneously and for long-term, adaptive drives intensify and implementation of pattern-conforming measures accelerate.

This process in the case of self-exploiting patterns may end up in transitory or definite collapse, depending on the reactions of higher level aggregations and external circumstances that bring about reversible or irreversible processes from systemic point of view. If reversible, they may end up either restoration of the status quo, restoration with power restructuring within the same pattern, or restoration with pattern shift. By shifting patterns in self-exploiting patterns, structural changes occur both in the direction of increased resisting capacities (see Table 1), and/or in the level of decentralization of discretion over resource extraction and allocation, and in complexity and the “indirectness” of dominant instruments of resource extraction and allocation in the

---

<sup>2</sup> In all patterns size, cultural and historical traditions, geopolitical location and the capacity to change status quo in power distribution will influence the extent of the necessity of reliance on external sources.

decision-making process: from forced resource redeployment, through decentralizing (resource revealing) reforms within the net, to market reforms (resource creating) reforms outside the network. However, selection criteria and actors' interest and behavior within the net do not radically change as a result of the pattern shift since those are self-similar system characteristics in party-states.

If changes become irreversible in any pattern they will result in system shift.

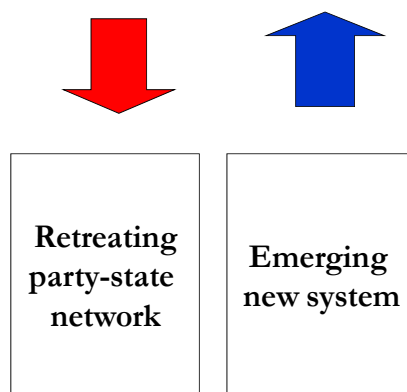
We may speak about system shift instead of pattern shift when so-far dominant structural and operating principles, selection criteria and actors adapting behavior become irrelevant and different operating principles and selection criteria and according behavior become dominant. Therefore, system shift is not a quantitative but a qualitative process. System shifts however occur in a process of system transformation with varying speed, and under different conditions.

#### *The process of system transformation:*

We define system transformation in party-states as the dynamics of a two-sided process: on the one hand, we refer to a process of retreat of the party-state network from different (economic, social, political) sub-fields of the system (see Figure 6). On the other hand, we emphasize the process of emergence and expansion of an alternative field (competitive or not) outside the party-state network. Owing to the self-similar and specific characteristics of the network, retreat and emergence might begin at different times, occur at different pace, or the same time at different level of aggregations, or differently in geographic space on the same level aggregation, or differently at different social and economic sub-fields, or even economic sectors.

*Figure 6.*

#### **Transformation of party-state systems (Csanádi, 2009)**



### *The structural specifics of the process of transformation:*

Transformation process involves the variation of the sequence of transformation of different subfields, strongly related to the distribution of power of network in party-states (Csanádi, 2006). Both retreat and emergence are *pattern-dependent*, introducing a path-dependency in the transformation. Transformation's structural specifics will be caused by the following factors: (1) differences *among* patterns and on (2) the disparities of power distribution *within* patterns. (3) Also the interplay among intertwined (similar or disparate) patterns of different levels of *aggregation* matter. Variations arise according to the density and depth and extent of centralization or decentralization of intertwining lines of dependence, the distribution of power of higher and lower level aggregations. (4) The result of the combination of the actual importance of different composing elements of the process of retreat and emergence and their interplay will influence the character of transformation providing different types of transformation dynamics. (5) Also spatial distribution and different clusters of the above four interacting variations will influence the propagation and speed of transformation.

All of the above five characteristics of pattern-conforming path-dependency and their spatial distribution will influence where, how and with what sequence, speed, conditions and outcome will pattern-dependent transformation occur. Next, we shall detail the above structural constraints on the transformation:

#### *(1) Consequence on the disparities among patterns on the transformation*

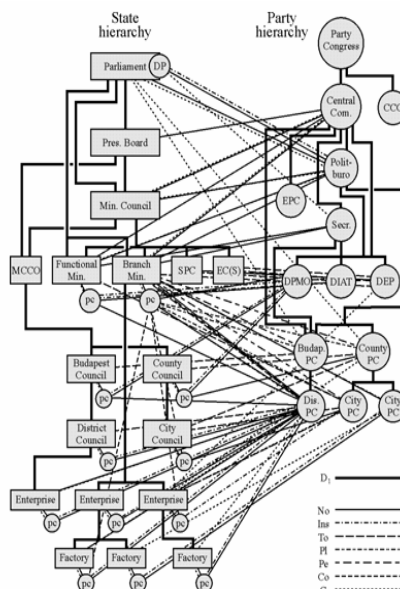
The IPS model suggest that path-dependency will emerge due to the different pattern *dynamics* in resulting in (a) the different *sequence* of transformation of the political and economic subfields, (b) in the different *pace* of the retreat of the net from monopolized sub-fields and -- due to different sequence and pace -- due to (c) the different political *conditions* of economic transformation and different economic conditions of political transformation.(see Fig. 7)

The interplay of the above structure-conforming characteristics with local individual traits will jointly influence the concrete outcome of the process of transformation, the adapting capacity of actors during the process, the level of cumulated uncertainties during transformation and thereby the speed of transformation at different aggregation levels and of different units of one level of aggregation.

Figure 7.

### Consequences of structure-conforming transformation on sequence speed and conditions

- Transformation is pattern-dependent
  - different sequence
  - different speed
  - different conditions
    - the political conditions of economic transformation
    - the economic conditions of political transformation



Note: Instruments of Party power: No= Nomenklatura system; Ins= Instructor system; To= Subject matter (topic) responsibility; Pl= Party lieson system; Pe= connection with the Personnel Department; Co = Regular consultations between enterprise PC secretaries and the branch ministry's secretary; G= Interventions in the name of general responsibility of the party

According to the model, retreat and emergence may take place first either in economic or political subfield, or even simultaneously, depending on the specifics of the pattern of power distribution in the party-state network. The different sequence also influences the speed of transformation of the different subfields, the different economic conditions under which economic or political transformation is taking place and the different political conditions under which economic or political transformation is taking place (Csanádi, 2006). The figures 8, 9 and 10 below demonstrate the pattern-conforming differences of the sequence, speed and conditions of transformation in the case of self-exploiting, self-disintegrating and self-withdrawing patterns.

In the case of self-exploiting pattern (e.g. Romania or some post-Soviet states) systemic collapse will occur only when growing tensions and increased pressure meet expanded internal and external economic and political opportunities or intra-elite conflicts arise in consequence of such externalities as the (expected) death of the leader and/or collapse of neighboring self-similar systems. In this pattern the net attached to all sub-spheres collapses simultaneously and abruptly. Thus, transformation of the different sub-

fields overlap and political and economic outcome is uncertain while overlapping transformations are accompanied by extensive and deep economic crisis due to long-lasting structural constraints and sudden exposure to competitive conditions causing cumulated uncertainties (see Fig. 8).

Figure 8.

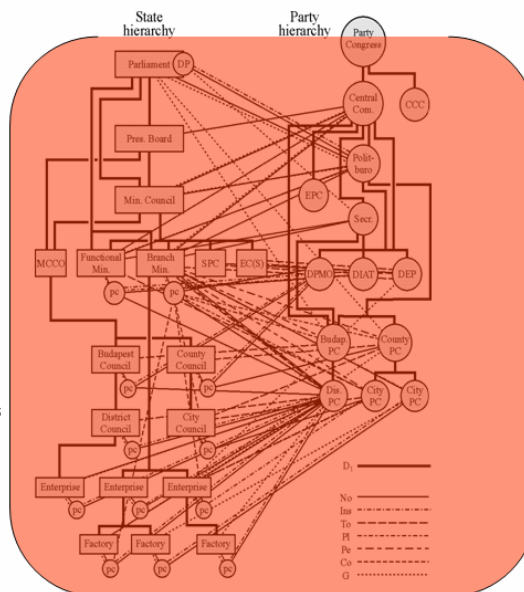
### System transformation in the case of the self-exploiting pattern

**Sequence:**  
**Overlapping**  
transformation of the  
different sub-fields

**Speed:**  
**Abrupt** collapse of the  
net attached to all  
subfields

**Conditions –**

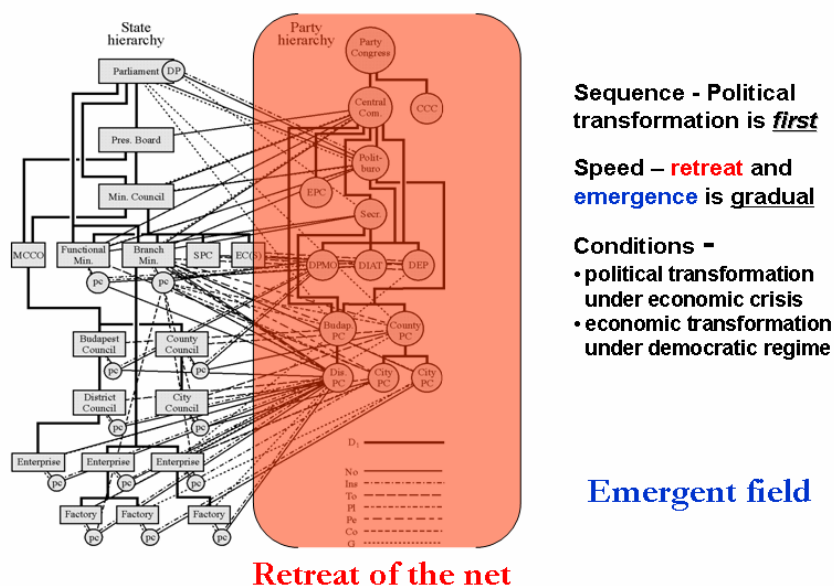
- uncertain political outcome
- longlasting economic crisis



In the case of the self-disintegrating pattern (e.g. Hungary) political transformation comes first (see later in more detail). In this case, the retreat of the net and the emergence of the new political sub-sphere are gradual. In this pattern, political transformation is followed by economic transformation. Thus, economic transformation occurs under transformed political conditions revealing different levels of institutionalization of democratic control. , accompanied by economic crisis due to the gradually evolving economic crisis during the politically rational self-reproduction of the system and exposure to competitive conditions (see Fig. 9).

Figure 9.

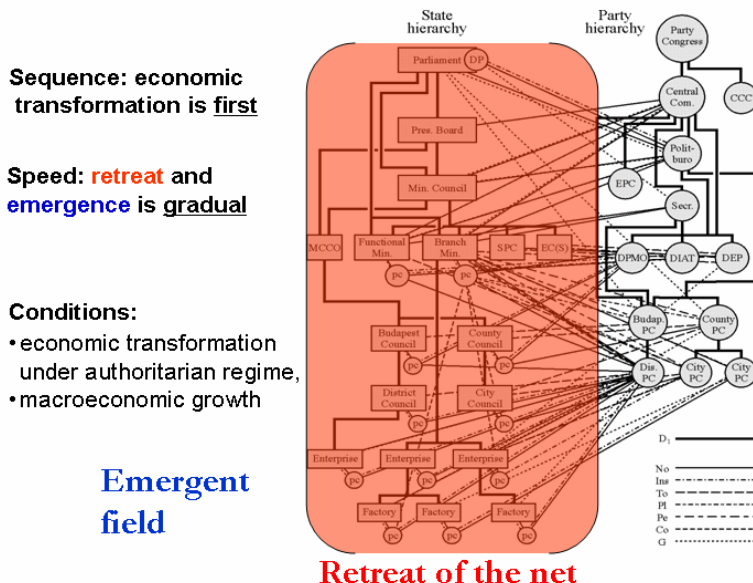
## System transformation in the case of the self-disintegrating pattern



In the case of self-withdrawing pattern (e.g. China), economic transformation comes first, either followed or not by political transformation (see later in more detail). The retreat of the net and the evolution of the new economic sub-sphere is gradual, economic transformation occurs under authoritarian political regime, accompanied by macroeconomic growth (essentially due to the economic field outside the net) and interactions among actors located within the net and those outside the network (see Fig. 10).

Figure 10.

## System transformation in the case of the self-withdrawing pattern



The retreat of the network in the given sub-sphere may be absolute or relative compared to the speed and actual direction of development of the emergent field in a sub-field. Relative retreat means the faster emergence and expansion of the field outside the network compared to the speed of development of the given sub-field embraced by the network (be they economic or political). Absolute retreat means the contraction of the network while the sphere outside the net is expanding, or stagnating.

## *(2) Disparities of power distribution within patterns*

Each pattern provides the main pattern-characteristics of power distribution. However, while keeping those characteristics there is a large variety of possible distributions of power within the given pattern. Varieties within patterns will influence the speed of retreat and emergence, the level of cumulated uncertainty, tensions and turmoil, the depth and length of the possible economic and social crisis, the scale of stratification of the society and sub-spheres within and outside the net, the size and strength of remaining networks, the chances of evolving new ones, the level of corruption, extent of state withdrawal and chances of the outcome of the transformation process concerning the new political regime and economic transformation.

In the case of self-exploiting pattern, the more sudden the collapse, longer and deeper the economic crisis, the slower the formation of market-friendly institutions and the higher is the cumulated uncertainty. The longer the implementation of forced resource redeployment, the longer they inhibited the stratification of the society the lower was chance for the formation of dissident groups. Thus, the more sudden the collapse, is the harder is to adapt to the changing environment and the greater the chance for the emergence of abundant but segregated small horizontal organizations and the harder is to form coalition among them be they economic, political or civil initiatives. In such cases chances grow for authoritarian domination of economic and political transformation or that of its stagnation. It is also greater the chance that the new regime will benefit from the fragmented infrastructure of the collapsed party-state power. It is also greater the chance for the state to be captured by the political leadership, cliques and fragments of former networks.

In the case of self-disintegrating pattern: The less flexible was the structure from inside owing to resisting capacities, the more intensive the drive to adapt to external constraints.<sup>3</sup> However pattern-conforming adaptation to restore party legitimacy takes

---

<sup>3</sup> Here is the mistake many comparative reformers have committed when suggesting the ideal origin, speed, sequence, and ideal regime of reforms without structural context. (Csanádi, 2006) Taking strategy superior over structural specifics this will blur structurally defined sequence, speed, and political conditions of economic transformation and political conditions of economic transformation.

place with the escalation of decentralizing reforms and due to their inefficiency, the gradual loss of party legitimacy and the subsequent retreat of the network from the political sub-sphere. Meanwhile, decentralizing reforms bring about more stratified economic entities and activities, and social stratification. The longer (the more gradual) is the transformation of the political subfield the more complex becomes the economic and political stratification of the society, and the higher is the chance for the emergence of horizontal political entities within the disintegrating political network and in the spheres abandoned by the retreating network by dissidents to form coalition that may develop into parties. Reforms, social stratification and horizontal organizations increase the chances for the stabilization of a democratic political regime; make it easier for the society to adapt to changes; and increases the chances for shorter period of economic crisis and that of cumulated uncertainty.<sup>4</sup>

In the case of the self-withdrawing pattern under authoritarian political regime, the more gradual is the retreat of the network from the economic sub-sphere, the larger the scope of emerging new economic sub-field outside the network, the more complex the economic stratification of the society becomes and the higher the tensions due to disparities of income and economic development channels to voice tensions remain weak. The more constrained the emergence of institutions for voicing (be they social, economic or political) outside the net during economic transformation, the larger the pressure on the party and the state to maintain political stability and growth.

Variations in the transformation not only depend on the differences among patterns and within those, but also may vary according to the different weight of their composing factors.

### *(3) Composing elements of the process of retreat and emergence*

The major factors of retreat either in economic or political subfields to be detailed below are the following: decentralizing, emptying, withdrawing, weakening and cutting off the net. In emerging fields in case of democratic or capitalist order: formation of horizontal organizations and institutions, expansion of the field by those competitive activities, capital and organizations transferred from the net as a result of its emptying and cut-off. The different combination of the inherent factors of the transformation of a subfield will interact and thus reinforce or slow down mutual dynamics. Emerging new field does not necessarily show democratic or capitalist characteristics. The outcome of

---

<sup>4</sup> Until democratic institutions do not stabilize there are chances for new power holders to neglect or minimize their capacity for checks and balances and become authoritarian as it occurred in several post-communist countries in Europe and disintegrated nation-level aggregations of the former Soviet Union.

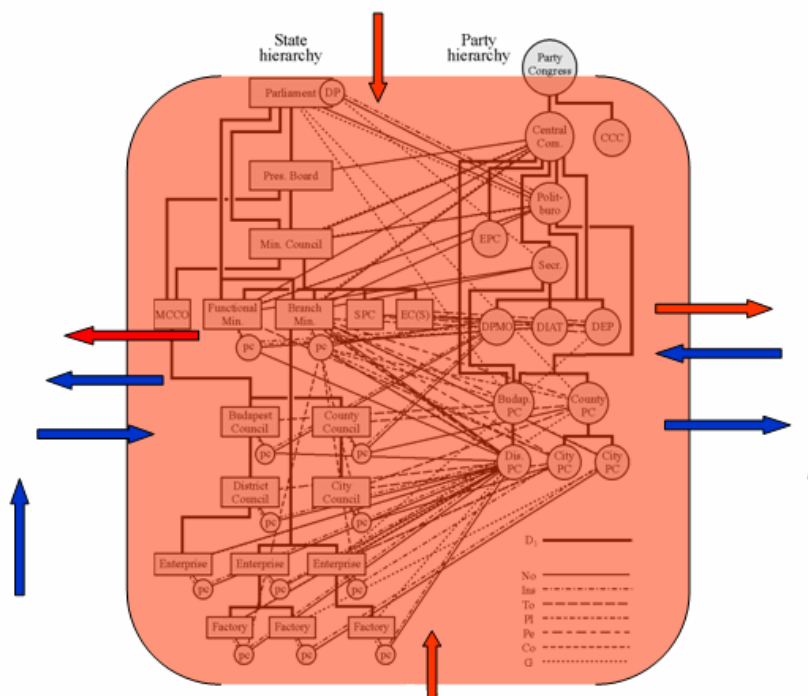


transformations may result in various political and economic orders: sultanism, or other authoritarian political regime and uncertain economic system ranging from feudalism to capitalism. (Bunce, Wolchik, 2006). We shall illustrate the emergence of these elements and their sequence in the different patterns.

In self-exploiting patterns, where system collapse is abrupt and transformation of subfields is cumulated, it is extremely hard to separate the impact of individual ingredient factors of retreat and those of emergence. The sequence and weight of the factors of retreat and emergence is hardly discernible, so is the mutual impact of retreating or emerging factors with different speed. It is accidental whether, when and which will gain weight or become dominant and whether the impact of the combination of those factors in the given conditions will actually lead to the reinforcement or the slowdown of transformation. It is also accidental how many times will these swings occur and what will be the final outcome (see the frequent political swings in Romania Albania, and the former Soviet states). Outcome is further blurred due to high level of cumulated uncertainties, deep and long-stretching economic recession, lack of alternative crystallized political force, lack of clear constituencies etc (see Fig. 11).

*Figure 11.*

**Parallel and cumulated transformation (retreat and emergence) of the different subfields**



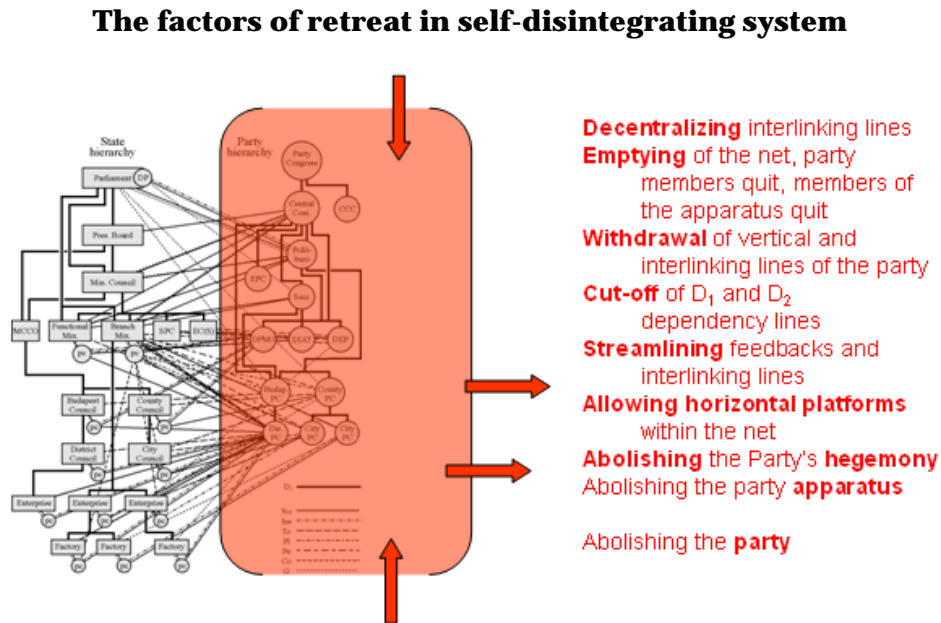
Note: Blue arrows represent the factors of the emerging alternative field (forming economic and political institutions outside the network) while red ones the factors of the retreating network (e.g. weakening, withdrawing, emptying, cut off)

We take the example of Hungary in self-disintegrating patterns, where due to hardening reproduction constraints of the system and consequently declining capacity for resource distribution, interactivity through the network declined. This drove economic policy and party to get rid of burdens by decentralizing the discretion over interlinking lines that reach the economic decision-makers. Declining influence and legitimacy of the party enhanced the cut-off of the network by growing numbers of quitting party members. Cadres emptied party positions by shifting carrier to public or private spheres (empty). Party withdrew interlinking line by abolishing full-time position of party secretaries subordinating them to enterprise managers. The shortened (withdrew) intra-hierarchical and interlinking lines by organizing multi-candidate elections: at local level governments. Weakened its influence by decentralizing former central discretion of ministries to appoint enterprise managers to local committees within enterprises, where local party apparatus had only selection function from self-candidates. Multi-candidacy was also introduced in the case of nominees to the parliament and to the central committee membership (weakening). Rationalization drives bring about the decrease of interest promotion possibilities through shortcuts. Actions were implemented to decrease short-cuts, thereby decreasing pressures towards resource distribution: the number of members in inter-ministerial and intraparty working committees was steered, or the whole committee was abolished, or large enterprises with shortcuts were disaggregated thereby cutting off their feedbacks and chances to create new ones in the name of competitiveness.

Disintegration of the party as a monopolized political power advanced: Exposed to external and internal pressures, power struggle within the party sharpened and party members begun to form horizontal platforms within the party forums, expressing and formalizing different political -- conservative, liberal, reformist -- views. Also reform groups were organized horizontally within the network crossing vertical lines of the hierarchy and also interlinking lines among hierarchies between party and non-party institutions. Holders, targets and functions of dependency threads were abolished (withdrawal): party secretary within non-party institutions ceased to be paid positions, so did party secretary position at district and county committees. Decentralized and weakened and steered nomenklatura system was abolished, and except for party discipline and party cells of members working in non-party organizations, other party functions remained social work without influence in both economic and administrative subfields. Later, political pressure from outside the net ousted from and forbid Party organizations in non-party institutions. Remaining party membership became organized on regional basis. Party soon declared the withdrawal from the requirement of party hegemony. Party apparatus (the holder of interlinking lines) was abolished, cadres scattered throughout economic and administrative fields. Workers' militia, the party's own military organization

was also abolished. Party collapsed and split into several parties according to former platforms. As a result of the process of retreat, Party as a social system was withdrawn from political and economic subfields, abolished as a hegemonic party and reborn as a political entity in a de-monopolized political sub-field (see Fig. 12).

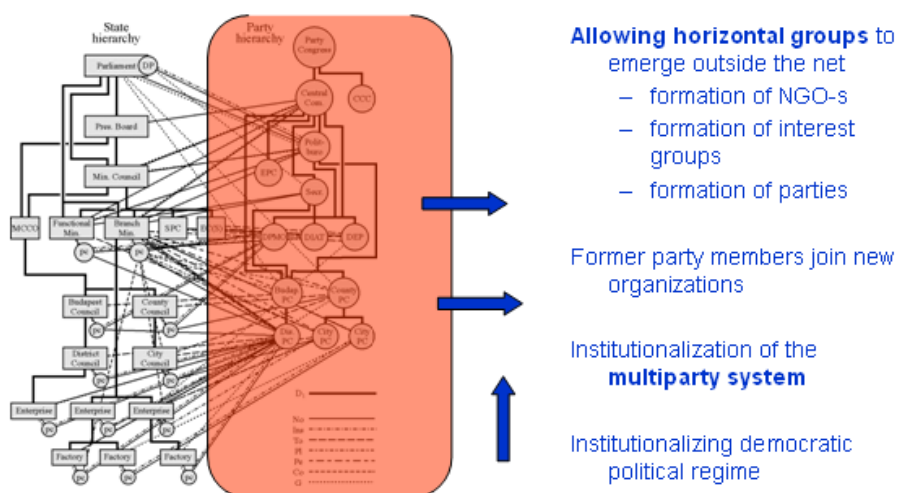
Figure 12.



Parallel to the gradual retreat, a new political sub-field was emerging outside the net. Growing number of horizontal groups outside the net was allowed to form: first NGOs of various kinds emerge with non-political scope. Formation of various interest groups was allowed to organize both on economic, public and political subfields. Formation of various political parties was allowed and later multiparty system institutionalized. With the withdrawal of the net, horizontal reform groups and platforms within the congress formed different leftist parties. Former party members leaving the net joined the new formations. Large extra-parliamentary coalition of the forming opposition was accepted as political partner by the Party (oppositional roundtable) and assumed decision-making functions. Based on its decisions and political pressure from outside the net, crucial laws were accepted by the old parliament. Such laws were: the institutionalization of free elections, publicity law, rule of law, strike law etc setting the basis of a democratic political regime. The new parliament was formed based on free elections. The reformist wing of the former communist party entered the new parliament as a small opposition party (Figure 13).

Figure13.

### The factors of emergence in self-disintegrating pattern

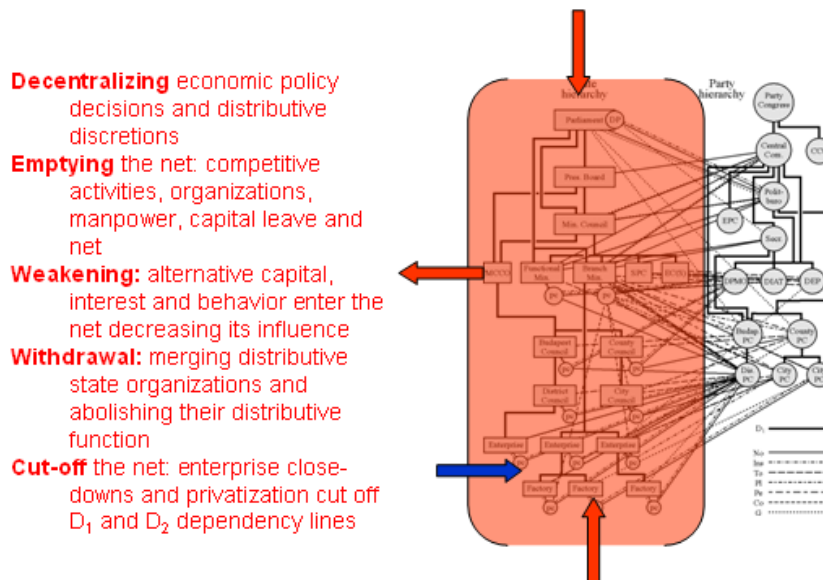


In the case of the self-withdrawing pattern the retreat starts due to long-term structural (internal) constraint of self-reproduction, and thus, to frequent hardening of reproduction constraint of the network. This is what forces decision-makers to leap out of the net. This process occurred either by opening up to external world and/or increasing the field outside the net domestically. The aim was the acquisition of further resources to maintain the reproduction of the network however this process also expanded gradually and long-term the competitive pressure on the economic subfield covered by the network. In theoretical terms it commenced by decentralization (see Fig. 14) of the dependency lines in the economy, followed by the withdrawal, and the cut-off of the lines of the net or the emptying and weakening the network. In practice in the Chinese case, it meant the decentralization of burdening decisions over allocations without decentralizing resources, Decentralization of loss-making economic units, and inversely, sucking up new resources and profit-making economic units. Lower level administration to where burdening distributional functions and inefficient economic units were decentralized began to close-down or privatize inefficient state-owned and collective enterprises (cutting off hierarchical and interlinking lines). The rationalization of management that brought about the abolishment of the institutional background of compulsory planning, and later on the abolishment of resource distribution discretions, and approval of smaller value investment goals at lower level were abolished (withdrawal). With the expansion and pressure of the competitive field from outside the net the stripping of state values through the transfer of competitive capital, product, organization and manpower accelerated (emptying the net). Also an opposite process took place: the infiltration of alternative (private) capital, behavior and interest (capitalist) and organizations into the net for political economic and

distributional advantages. In such economic formations (joint ventures) the party's influence in decision-making substantially decreased (weakening).

*Figure 14.*

## The factors of the retreat of the network



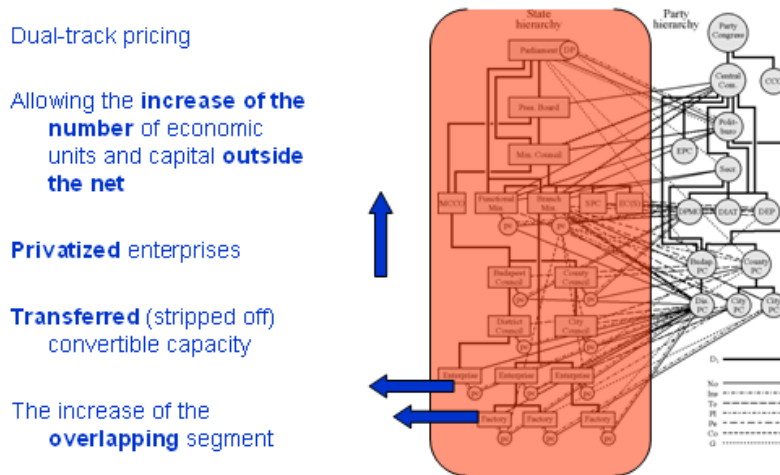
The emerging and expanding field outside the party-state context also occurred in different dimensions. It meant increasing decentralization of decision-making over production factors both in agriculture and industry that provided larger room for maneuver for economic units. The development and expansion of the emergent market in China was also fuelled by the dual-track price system, the growing number and scope of joint ventures with foreign capital, the green-field foreign and domestic private and privatized enterprises, as well as the transferred values (capital, organization, activity and manpower) from the party-state sphere and the developing market-friendly institutional background. (see Fig. 15).

The composing factors of the process of retreat and emergence may become important in different sequences, individually, simultaneously, or in different combinations. Their different combination will influence the ways the transformation occurs within each pattern. Major composing factors of the process are similar (see tables 12 and 14; and Tables 13 and 15), no matter the sequence of transformation neither the subfield under transformation. Similar factors raise similar problems and incite similar solutions despite economic and social disparities (Csanádi, 2005, 2006, 2007). This characteristic is common, also independent of the space and level of aggregation and the sequence of transformation of sub-fields. However, the scale of impact will be strongly influenced by the sequence, speed and conditions of system transformation and the distribution of power

within the pattern and the combination of the variety of its factors and individual characteristics.

Figure 15.

### The factors of the emerging competitive field



#### (4) The impact of different levels of aggregation on the transformation

The fourth systemic factor that influences the speed of transformation and the outcome of the transformation is the mutual impact of the relationship between and within pattern differences among different levels of aggregation. The different administrative levels may be closely or loosely intertwined within a self-similar unit owing to the density and depth of dependency threads and feedbacks of the unit, the supra-unit and its sub-units, institutions and individuals within them, providing the self-similar unit's complex constraints of self-reproduction.

The different interplay of the distribution of power at different level aggregations and the density of their inter-linkage will contribute to the systemic constraints of the development of individual characteristics of economic and social disparities in time and in space and thus the characteristics of the emerging new social systems. The mutual impact among levels of aggregation will result in the constraints and opportunities for disaggregation of aggregated self-similar units and influence outcomes. Disaggregation of party-states (Soviet Union, Czechoslovakia and Yugoslavia) are attributed to the crucial role of the spatial concentration of nationalities providing the drive for detachment (Bunce, 1999). However, spatially concentrated minority and power structure interplay with many factors and will produce a wide variety of possible outcomes. Outcomes may depend on whether higher and lower level aggregations and same level aggregations are of different patterns, or varieties within patterns. Historical experiences suggest that there is

more chance for disaggregation in case of different patterns on higher and same level aggregations. Chances increase and drives grow if national level minority forms local level majority, and whether these latter are integrated or not in the local network or higher levels and across hierarchies, or there is a neighboring local level integrated majority of country level same minority. The more integrated into the network the higher the chance for resisting capacity and thus disaggregation. Crucial is the role of power distribution among aggregation levels: to what extent discretions over interlinking lines, extraction and allocation have been decentralized. The more decentralized the higher is the chance for disaggregation. Opposite is the impact of the density and depth of interlinking lines handled at the higher aggregation level attaining lower levels. The denser they are and the lower they reach the less the chance for disaggregation. The combination of these factors will have an impact on the constraints and drives and outcomes of total or partial disaggregation of larger aggregations and on their speed of disaggregation during transformation.<sup>5</sup>

*External constraints and pattern sensitivity in transformation:*

The more flexible was the structure from inside (the less capacity for resistance to interventions), the less necessity for adaptation to the environment, thus the more abrupt the collapse and the slower the retreat of fragmented networks and the development of the emergent field. The less flexible was the structure from inside, the more drive to adapt to external constraints, the more gradual the retreat and the faster is the emergence of the new sub-spheres.<sup>6</sup> Consequently, varieties within patterns will influence the speed of retreat and emergence, the level of cumulated uncertainty, tensions and turmoil, the level of corruption, the depth and length of the possible economic and social crisis. Varieties will also have an impact on the scale of stratification of the society and sub-spheres within and outside the net. They will affect the degree of remaining networks, the chances of evolving new ones, and degree of state withdrawal and chances of the outcome of the transformation process concerning the new political regime and economic transformation.

---

<sup>5</sup> Further questions emerge which are out of the scope of this study. What if local majorities and self-similar networks but different patterns do not overlap? And what if they overlap? Is there non-disaggregated country with local majorities different patterns? What if local majorities, self-similar networks but variations within patterns overlap? What if minority is also locally such? What if the local majority is the same as country level majority but it has different patterns within self-similar network?

<sup>6</sup> Here is the mistake many comparative reformers have committed when suggesting the ideal origin, speed, sequence, and ideal regime of reforms neglecting the structural context (Csanádi, 2006). Taking strategy superior over structural specifics this will blur structurally defined sequence, speed, and political conditions of economic transformation and economic conditions of political transformation.

Thus, self-withdrawing pattern will be structurally the most exposed and thus, the most adaptive, while self-exploiting (all party-states in the 1950ies or Romania by the end of the 1980s or North Korea to the present) the less adaptive to external impacts.

*The time-span of constraints exerted on transformation:*

Hardening or softening constraints that incite different adaptation pressures may last for short- and long-term -- also during transformation. These pressures will spur different adapting behavior according to transforming patterns and actual external dynamics. On the one hand, short-term adaptation pressures might provoke transitory or definite restructurings of the net and the slow-down of the process of transformation. On the other hand, long-term adaptation pressures during transformation might bring about the acceleration of the transformation of the whole system enhancing the conditions of the transformation of further sub-fields. Characteristics of this speed-up will be pattern-dependent.

*Dynamics of transformation:*

Concluding the above, (1) the differences among patterns (2) the different distribution of power within patterns, (3) the different combination of the factors of retreat and emergence in transforming sub-fields (4) the differences of power distribution and the interconnectedness of different aggregation levels are the systemic structural constraints of the development of economic and social disparities also influences by spatial disparities at same aggregation levels. External and internal constraints and their interrelated dynamics may contribute to the speed-up or slow-down of the process. Disparities in time and in space will contribute to the individual *varieties of political or economic transformation* both at local levels and on different levels of aggregation and on different sub-fields. Spatial disparities in the dynamics of system transformation may stabilize or cause unprecedented frictions among neighboring units that may speed up or slow down the transformation process, may propagate or may remain insulated. These constraints together will contribute to the characteristics and relative speed of the transformation.

Therefore, though we still argue that system transformation means the retreat of the network from different subfields and the emergence of a new system outside the network, transformation does not imply a continuous process of “transition”, neither outcome is guaranteed to be democratic or capitalist. Transformation process has a dynamics in which the direction and speed of change of the network relative to those in the dynamics of the emergent field may vary according to the combination of the above external and internal factors.













In this respect, the IPS model combines theoretical and empirical research purposes. Despite being a theoretical framework for comparative analysis of party states and their transformation, operationalized composing factors of retreat and emergence also serve as instruments to measure the dynamics of transformation through the relative speed and direction of retreat and emergence.

Table 2 depicts the possible variations of directions of change of the network and emergent fields relative to each other. One can see that there are nine variations of parallel change that become multiplied if we take into consideration also the relative speed in the process of change of the two fields. Relative direction and speed of change of the two fields will be called as the *dynamics of transformation*.

Table 2.

**Different types of transformation dynamics**

	Growth	Stagnation	Decline
Growth			
Stagnation			
Decline			

Note: Blue color represents the direction of change of the emergent field; red color represents the direction of change of the network field.

Definition of the dynamics of transformation allows for measuring the different variations in time and space and aggregation levels using the composing factors or retreat and emergence (e.g. privatization, close-down of economic units within the net, creation of competitive units outside of it, development of different indicators of economic units within and outside the net etc).

The above mentioned factors are the systemic characteristics of transformation. Their interaction with the size, economic, social, cultural, historical, geopolitical conditions of the given unit (be it at any level aggregation), and the actual individual external and internal dynamics will mutually influence each other and determine the varieties of system transformation and their outcome. Among the different dynamics dominant dynamics may shift in different periods in space and different aggregation levels. Shifts may be of longer

or shorter term representing the time-span of slow-down or acceleration of transformation and its dynamics respectively.<sup>7</sup>

*The IPS model's characteristics as a methodological framework for interpreting system evolution*<sup>8</sup>:

Based on the above influencing factors of transformation we can raise the following question: Is the transformation of party-state systems an evolutionary process? Literature on social evolution does not provide standard criteria or concepts to which one could confront the characteristics found in the structure, operation and transformation of party-state systems described by the IPS model. Practically, there is no explicit definition of social evolution from system point of view (Kornai, 2000b). Debate is still evolving on several dimensions. Views are scattered and results of the efforts to integrate them into a complex paradigm is still in the waiting. Problems emerge in combining institutions and individuals, institutions and systems, social systems and individuals, dominant selection criteria within the system, voluntary individual and involuntary systemic selection, individual strategies and systemic criteria of operation, internal and external selection criteria, system transformation with system shift, transformation and varieties of systemic outcomes, combining modernization, development, transformation and evolution, adapting all this from the point of view of competing theories of natural, cultural, economic selection (Schelkle et al. 2000).

Below we shall point to the characteristics of the IPS model from the point of view of the above emerging problems in evolutionary theory regarding to social systems.

The analysis of institutional structure of party-states in the model not only embraces formal bureaucratic rules, procedures, outcomes of a hierarchical structure, but also the

---

<sup>7</sup> Based on empirical analysis in China during 1999 and 2008 of the changes in the gross industrial output value of the economic units belonging to the net and those belonging to the emergent field we can experience one dominant transformation dynamics: that of the absolute retreat during the whole period. This type of dynamics refers to the expansion of the emergent field parallel to the contraction of the network field. It fits to the theoretical concept of the transformation in the model. We can also detect shifts of dominant dynamics in two periods within the longer interval: one was statistically confirmed when external constraints softened by China entering the WTO in 2001. This move had spill-over effects to the network field, changing the dynamics from absolute to relative retreat of the net, that is, when both fields grow, but that of the net is slower. This type of transformation dynamics slows down the speed of transformation. The other shift though lacking contemporary statistical data was detected through newspaper analysis, when external constraints hardened due to declined export chances in global crisis. Decreased export chances contracted the emergent field, while the network field expanded due to increased state interventions. The shift, though transitory, also implied a slow-down in the dynamics of transformation (Csanádi, 2010a,b).

<sup>8</sup> This part of the theoretical chapter should be taken as a sketch, since it needs further thorough work. Social system change based on network analysis mentioned above should be analyzed in the context of evolutionary literature dealing with social change and social paradigms (e.g. by Kornai in 2008a,b, 2009 (first presented in 1998, Berlin); Schelkle et al. ed., 2000; Hodgson, 2006; Hodgson and Knutsen, 2006; Carothers, 2002; Hermann Pillath, 2008; North, 2006).

institutional ties binding party, state and economic actors across hierarchies are taken into account. The IPS model reveals the interrelation of the political, bureaucratic and economic fields through individual interactions of decision-makers in party-state systems. Thus, the IPS model simultaneously involves individual actors and institutions, and provides both the structural basis and the dynamic consequences of their interactions.

The IPS model interprets structural position of an actor nested in the network in party-state systems as simultaneously holder of, and captured by, dependency threads and interest promotion channels. Hence the complex capacity of actors for resource attraction from above, resisting capacity to interventions, resource extraction from below and allocation capacity. Inequalities of these capacities depend on actors' different extent of bargaining capacities based on politically rational concerns in the power structure. These same structural conditions will modify the interpretation of budget constraints in party-states (Kornai, 1992): budget constraints, if nested in power relations, will be interpreted as the reproduction constraints of bargaining capacities, while soft budget constraints attributed to economic units in general in party-states will be regarded as selectively soft or hard reproduction constraints of different actors within the network according to their bargaining capacities.

Constraints of reproduction of individual bargaining capacities are strongly tied to the reproduction constraints of the whole structure. Interrelation evolves through the distribution of power in the network and related individual bargaining capacities within it for resource extraction, resource attraction, resource distribution and resisting to interventions. The higher the individual actors' bargaining capacities within the structure, the more frequently the reproduction of the whole structure meets hardening constraints, owing to hardships of resource extraction due to resistance, and to path dependent distribution based on political rationality.

The IPS model deals with disparities of power distribution and its consequences both in time, in space and different levels of aggregation through the network. Thus, it is able to handle simultaneously the dichotomist dynamic concepts of center-periphery, principal-agent, state-society, party-state, economy-politics, central authoritarianism-local federalism and central planning and local government as different aspects of the same power relations that form the network.

The same network characteristics allow us to combine self-reproduction with the self-similar reasons of encoded self-consumption of the system, despite the differences in pattern of power distribution, instruments of resource extraction and distribution and economic conditions. Since economic behavior is politically rational instead of economically, and power distribution rather than efficiency determines the constraints of

self-reproduction of the system, the process of self-reproduction is simultaneously a process of self-consumption.

Similar complexity is characteristic in handling the system's self-reproduction and transformation in its strong interdependence. Transformation is usually taken as transition to market economy without reflecting on the impact of the interrelated development process of the retreating network and the emerging field outside of it. The model reflects the strong interrelation among self-reproduction, retreat and emergence by linking the frequency of hardening constraints of self-reproduction owing to the specifics of power distribution to the dominant instruments of self-reproduction (forced resource extraction and redistribution, resource revealing, decentralizing reforms within the network and resource creating reforms outside the network). In this respect the model is able to deal simultaneously with decentralization of decisions, reforms and the lack of reforms by integrating them and their complex function according to power relations, and within those, in the different patterns of self-reproduction.

The model, finds interrelation between structural patterns of power distribution their dynamics and the differences in the sequence, speed and condition of transformation. It also points to the similarities of the composing elements within the processes of retreat (decentralization, emptying, withdrawing, weakening and cutting off of the network) and those in the processes of emergence (the transfer of units and individuals cut-off the net, and that of activities, organizations, groups, individuals and capital stripped off the net, development of that of horizontal relationships and new horizontal organizations), no matter which sub-field is surveyed and which patterns are examined.

The model thereby is able to distinguish reforms, marketization and system transformation frequently taken as synonyms in comparative literature. Reforms in the model are instruments of self-reproduction of the party-state system, be they within or outside the network; marketization is one usual variant of the emergent field outside the network during the process of the transformation (retreat and emergence) of the economic sub-field; while transformation is a process of system change either with or without reforms, sudden, or gradual, in different sequence (economic or political transformation first) and different political and economic conditions, with different possible outcomes owing to different patterns of power distribution and different dominant pattern-conforming instruments of self-reproduction. Opposite to the usual comparative approach, the model interprets elite behavior, strategy implementation within the framework of structural constraints and path dependencies but also considering their mutual impact. Thus, the model handles reforms from below, above, within authoritarian rule or in democracy a structurally determined condition rather than an ideal elite's ideal strategic choice.

The model takes external economic constraints (exerted by the field outside the net, either domestically or abroad), and internal structural constraints (depending on internal power distribution) simultaneously into consideration in their mutual dynamic impact on the system's self-reproduction. The strong interrelation and mutual impact of external and internal elements of reproduction constraints is revealed through their alternating or simultaneous softness or hardness exerting varying strength of adaptation pressures; pressures are combined with the varying time-span of their impact; also pattern dependence of impacts and reactions to varying external and internal adaptation pressures in time, in space and in different aggregation levels are considered. All these impacts may occur in different stages of the reproduction dynamics: both during the period of self-reproduction and during transformation with different consequences. These same external and internal constraints combined with different time-span explain the differences to the reactions to adaptation pressures of the same patterns and that of different patterns.

Based on the self-similarities in time, space and levels of aggregation, the model handles disparities of operation and transformation also spatially and simultaneously in different levels of aggregation.

*Interpretation of social system evolution of party-states with the instruments of the IPS model:*

We suggest that the above characteristics of the IPS model might contribute for a methodological framework for interpreting social system evolution. Based on this dynamic network we can define the meaning of evolution in party-state systems: evolution of party-state systems may mean pattern change or system change that occurs during the drives for the system's self-reproduction. Thus, system evolution in party-states includes the self-reinforcing interactions between self-reproduction, retreat of the network and emergence of a new system during internal and external drives for adaptation.

Incentive for individual adaptation drives, and content of adaptation are fuelled by the system's specific selection mechanism inciting politically rational economic behavior to reproduce or improve bargaining capacities within the network and fit selection criteria. From the point of view of the adaptation of the net: the occurrence of pattern conforming rare, occasional or frequent hardening of structural constraints incite pattern-conforming adaptation pressures in strong interaction with the externally exerted softening or hardening competitive adaptation pressures. Depending on the time-span of internal structural and external competitive pressures, adaptation may end up in restructuring status-quo in the net, in temporary or definite collapse; temporary collapse means either reversibility, since it may end up in restoring original complexity status-quo in the net. It may however be irreversible, improving the complexity of the structure by forming new

patterns; Though in principle cannot be excluded, historically only self-exploiting patterns were intersected by temporary collapse, thus, reorganization in new patterns occurred only from the original self-exploiting pattern. New patterns are more complex than the original one, regarding instruments of self-reproduction and actors behavior and adaptation. However, shift of patterns after transitory collapse is not unavoidable: original pattern may be regenerated, and thus, complexity not increased. In case of pattern shift, structural changes occur both in the direction of increased resisting capacities, and/or towards the decentralization of discretions over resource extraction and allocation, and towards the dominance of indirect instruments of resource extraction and allocation, and more room for maneuver for decision-makers during self-reproduction. However drives for adaptation and fitting selection criteria, as well as this latter within the net remain unchanged.

Irreversible collapse may be abrupt in less complex, gradual in more complex patterns. In case of longer-term parallel external and internal hardening of structural and competitive (internal and external) constraints on different patterns complexity is not decreased, neither new pattern-shifts occur but in all patterns adaptation takes place with the escalation of the frequency of the implementation of dominantly pattern-conforming measures leading to system transformation. Thus, despite growing complexity with pattern shift, this latter is not a precondition of transformation and system change. Pattern shifts may be interpreted as system evolution due to growing complexity, but transformation and system change may occur without pattern shift as well.

In all patterns system change is pre-empted by a process of system transformation when the network as a social system is withdrawing and parallel to this process outside of on vestiges or the retreating network a new system is emerging. Depending on pattern characteristics, the sequence of this process regarding sub-spheres of the system is (a) either cumulative as all sub-spheres of the system collapse and transform simultaneously, or sequential (b) since retreat and emergence (transformation) occurs dominantly first in economic or first political sub-spheres. Sequence will define the political and economic conditions under which simultaneous or sequential transformations occur. No matter the speed, sequence and conditions of transformation, all may end up in system shift.

Shifting social systems during the process of self-reproduction mean the gradual or sudden retreat of the main composing elements of the network. Retreat also implies the vanishing of the dominant organizing principle, within that the main principles of connection and operation, institutions of coordination and control and subsequent selection criteria and actors' interest and behavior. During the retreat of the network the composing elements of a new system emerge with different selection criteria and different institutions of coordination and control inducing different interests and behavior. In case

structural changes do not attain the main elements and connecting and operating principles of the system, then these changes are reversible, and thus, do not mean evolution, only self-reproduction of the status quo. If they do reach system characteristics, than changes may become irreversible (if not restored by the higher level aggregation), status quo cannot be restored and the process of evolution leads to system change.

Outcome only retrospectively looks like a transition when all failed alternatives that emerged during the transformation lost importance. Dynamics of transformation and outcomes are evolutionary processes structurally influenced by the interplay of several structural characteristics of the network: the differences among patterns, the differences within patterns, the differences and density of ties between different level aggregations of the network, the interplay and different weight of the composing factors of the process of retreat and that of emergence and the consequences of their interaction during the process, as well as the characteristics of its spatial propagation, all these interacting with the dynamics and varying pressures of the external environment. Owing to these impacts, dynamics of transformation is full of unprecedented swings of different amplitude, speed-ups and slow-downs, repeated shifts in the type of transformation dynamics characterized by the differences in relative direction and speed of change of retreat and emergence. Dynamics of transformation may produce reversible quantitative changes without qualitative shifts or may freeze in the longer-term stabilization of any hybrid system form. All the above structural and dynamic factors interacting with individual characteristics (size, cultural, historical traditions, level of development, geopolitical location, elite quality and position, minorities' integration into the network etc) and changing external conditions of the given field will have a strong impact on the emergent institutions, interests and behavior, economic and social stratifications, the level of cumulated uncertainty, the duration of the economic crisis and the type of new political and economic order and its instability. Owing to the self-similar characteristics of party-states in time, space and different levels of aggregation, system evolution may be traced at any self-similar unit at any level and any sub-field, or any sector reached by the network.

## CONCLUSION

Let us summarize the specifics of the IPS model concerning operation and transformation of party-state systems. The model is a comparative institutional framework that defines the main elements, main connecting and operating principles of party-states. Elements and principles are structural and functional components of a network formed in the decision-making process through the dependency and interest promotion relationship of party- state- and economic decision-makers during interaction. Elements, connecting and operating principles are self-similar in time, in space and at different levels of aggregation of the network. The model also describes the structural background of the varieties of different operations and transformations in time in space and in different aggregation levels despite self-similarities. It reveals the main structural factors influencing the varieties in the operation, transformation and outcomes in the system transformation.

The above structural and operational features and their strong interaction with external constraints that are self-similar in time, in space and in different aggregation levels of the structure, will induce self-similar behavior and interest for selection, allocation and self-reproduction and involve the same structural and operational traps during reproduction. In such self-similar structures the party as one political entity in one sub-field, (political), monopolizes its subfield. From the position of political monopoly, the party stretches out its instruments of power, and embraces and infiltrates all other sub-spheres of the society influencing the decision-making process by overlapping positional, activity and organizational structures and individual decision-makers. Political rationality of infiltration determines the specifics of inequalities in bargaining and reproduction capacities and thereby actors' behavior in time, in space and in different levels of aggregation. The evolving politically monopolized institutional power structure that bears the above self-similar structural and functional characteristics operates as *one specific kind of social system* that we call party-state systems.

By interpreting the structure, operation and transformation of a system as a network and its dynamics, several apparently independent dimensions of the social system may be analyzed in their complexity and interdependence and as factors of a social system evolution. The network is able to bind individual actors and institutions, individual and systemic self-reproduction; self-reproduction and instruments of self-reproduction. It involves the convivance of different instruments of self-reproduction and combines patterns and dominant instruments of self-reproduction. The model interlinks structure, operation, transformation and varieties of systemic outcomes. It distinguishes the specifics



of internal and external selection. It also defines structural adaptation mechanisms and motivations within the network for selection and better fitting, and adaptation mechanisms to external pressures and their pattern dependence. Through the characteristics of systemic self-similarities in the network, chances emerge for the evaluation of different aggregation level units. The model also clarifies the interrelation of strategies and systemic mechanisms; the differences between reforms and transformations, transformation and system change; pattern shifts, system shifts and the dynamics of complexity in those.

The system characteristics and dynamics suggested by the model in main principles of coordination selection, adaptation and changing complexity in pattern and system change and uncertainties and structural constraints in path dependency and outcome allow for interpreting this process of self-reproduction and transformation as a social system evolution.

## REFERENCES

- Aslund, Anders, (1993): Comment on "Gradual versus Rapid Liberalization in Socialist Economies by McKinnon, Proceedings of the World Bank Annual Conference on Development Economics 1993
- Bandelj, Nina (2003) Varieties of Capitalism in Central and Eastern Europe  
For presentation at the Society of Comparative Research Graduate Student Retreat, May 9-10, 2003
- Brank, Gregory G. (2002) Why societies Collapse. A Theory Based on Self-organized Criticality *Journal of Theoretical Politics* 14 (2): 195-230
- Buchen, Clemens (2005) East European Antipodes: *Varieties of Capitalism* in Estonia and Slovenia *Prepared for the Pre-Publication Conference "Varieties of Capitalism in Post-Communist Countries" at Paisley University on 23-24 September*
- Bunce, Valerie (1995), "Should Transitologists Be Grounded?" *Slavic Review* 54, No. 1 (Spring 1995): 111-127.
- Bunce, Valerie (1999) *Subversive Institutions: The Design and the Destruction of socialism and the State* Cambridge University Press, Cambridge, UK
- Bunce, Valerie, - Wolchik, Sharon L. (2006) Favorable Conditions and Electoral Revolutions  
*Journal of Democracy* - Volume 17, Number 4, October 2006, pp. 5-18
- Carothers, Thomas (2002), The End of the Transition *Paradigm Journal of Democracy* - Volume 13, Number 1, January 2002, pp. 5-21
- Coates, David ed. (2005) *Varieties of capitalism varieties of approaches* New York : Palgrave Macmillan,
- Csanádi, M (2005) 'Reforms and Transformation Paths in Comparative Perspective: Challenging Comparative Views on East European and Chinese Reforms' *Acta Oeconomica* Vol. 55, No. 2, pp. 171-198
- Csanádi, M (2006) *Self-Consuming Evolutions: A Model on the Structure, Selfreproduction, Self-destruction and Transformation of Party-states, tested on the Romanian, Hungarian and Chinese Cases* Hungarian Academic Press, Budapest
- Csanádi, Maria (2010a) Institutional Reactions to the Impact of Global Crisis at Source and Destination Cities of Migration in China MT-DP 2010/13
- Csanádi, Maria (2010b) Reactions to Short-Term Adaptation Pressures during Transformation in Party-States: the Case of China MT-DP 2010/31
- David, Paul A. Path dependence, its critics and the quest for 'historical economics' *All Souls College, Oxford & Stanford University, 2000*
- Degenkolb, Nico (2010) Varieties of capitalism in Central Eastern Europe - coordinated liberal or dependent market economies? : the institutional impact of German foreign direct investment in Hungary Budapest : CEU, Budapest College
- Denglian, Jin. and Kingsley E. Haynes (1997), "Economic Transition at the Edge of Order and Chaos: China's Dualist and Leading Sectoral Approach" *Journal of Economic Issues* XXXI. No. 1, (March, 1997): 79-100

- Dorenspleet, Renske (2004) The structural context of recent transitions to democracy  
*European Journal of Political Research* 43: 309–335, 2004
- Frane, Adam, Primož Kristan, Matevž Tomsic: Varieties of capitalism in Eastern Europe (with special emphasis on Estonia and Slovenia) *Communist and Post-Communist Studies* (2009) 1-17
- Gans-Morse, Jordan (2004) Searching for Transitologists: Contemporary Theories of Post-Communist Transitions and the Mith of a Dominant Paradigm, manuscript, 2004  
<http://www.google.hu/#hl=hu&source=hp&biw=1135&bih=511&q=gans-Morse+Searching+for&aq=f&aqi=&aql=&oq=&fp=49focb6077be0b47>
- Gelb, Allan, Garry Jefferson and Inderjit Singh, (1993) “Can Communist Economies Transform Gradually? The Experience of China” in Olivier Blanchard and Stanley Fisher, eds., *NBER Macroeconomics Annual* (Cambridge: MIT Press), 87-133;
- Stanislaw Gomulka, (1994): “Economic and Political constraints during Transition' Europe”. *Asia Studies* 46 No. 1: 89-106
- Hanson, Philip (2007) The Tasks Ahead in Comparative Economic Studies: What Should We Be Comparing? *Japanese Journal of Comparative Economics* Vol. 44, No. 1, Jan. 2007, pp. 1-14.
- Havrylyshyn, Oleh (2006) Divergent Paths in Post-Communist Transformation Capitalism for All or Capitalism for the Few? February 2006
- Hellman, Joel, (1998): “Winners Take All: the Politics of Partial Reform in Post-communist Transformations” *World Politics* 50 (January): 203-3
- Hermann-Pillath, Carsten (2008) *Diversity, Identity and the Indeterminacy of the Size of Nations. A Critique of the Alesina School from the Viewpoint of Evolutionary Political Economy*, (forthcoming, *European Journal of Law and Economics*, 2008). SSRN-link
- Hodgson, Geoffrey M. (2006) Institutions, Recessions and Recovery in the Transitional Economies *Journal of Economic Issues* Vol. XL No. 4 December 2006
- Hogson, Geoffrey and Thorbjørn Knudsen Why we need a generalized Darwinism, and why generalized Darwinism is not enough *Journal of Economic Behavior & Organization* Vol. 61 (2006) 1–19
- Knell, Mark and Martin Srholec (2005) Emerging Varieties of Capitalism in Central and Eastern Europe NIFU STEP and TIK centre, University of Oslo, Norway\* *Version of 19 September 2005*
- Kornai, János (1986) “The Hungarian Reform Process: Visions, Hopes and Reality” *Journal of Economic Literature*, Dec. 1986, **24**/4: 1687-1737.
- Kornai, János (1990) “The Affinity between Ownership Forms and Coordination Mechanisms. The Common Experience of Reform in Socialist Countries” *Journal of Economic Perspectives*, Summer 1990, 4/3: 131-147.
- Kornai, János (1992a) “The Postsocialist Transition and the State: Reflections in the Light of Hungarian Fiscal Problems” *American Economic Review*, Papers and Proceedings, May 1992, 82/2: 1-21.
- Kornai, János (1992b) *The Socialist System. The Political Economy of Communism* Princeton University Press, Princeton
- Kornai, János (1994) “Transformational Recession: The Main Causes”, *Journal of Comparative Economics*, 1994, 19/3: 39-63.
- Kornai, János (1996a) “Paying the Bill for Goulash-Communism: Hungarian Development and Macro Stabilization in Political-Economy Perspective” *Social Research*, Winter 1996, 63/4: 943-1040.
- Kornai, János (1996b) “Hardening of the Budget Constraint under the Postsocialist System”. *Japan and the World Economy*, 1996, 8: 135-151.

- Kornai, János (2000a) "What the change of the system from socialism to capitalism does and does not mean." *Journal of Economic Perspectives*. Winter 2000, 14/1: 27-42.
- Kornai, János (2000b) The System Paradigm in "*Paradigms of Social Change: Modernization, Development, Transformation, Evolution*" (Campus Verlag-Frankfurt/New York St. Martin's Press-New York)
- Kornai, János (2003) "Understanding the Soft Budget Constraint". authors: Eric Maskin and Gerard Roland. *Journal of Economic Literature*, 2003. December No. 61:4. pp. 1095-1136.
- Kornai, János (2008) "What does 'Change of System' mean?" Chapter 6, From Socialism to Capitalism. Budapest: Central University Press, pp. 123-150.
- Kornai, János (2008) *Some system-specific features of capitalism* (published online first) Lane, David and Martin Myant eds. Varieties of capitalism in post-communist countries New York : Palgrave Macmillan, 2007
- Mizobata, Satoshi ed. Varieties of capitalisms and transformation Kyoto : Bunrikaku, 2008
- North, Douglas C. (2005) *Understanding the process of Economic Change* Princeton University Press, Princeton-Oxford 2005
- Ray, Larry (2009) At the End of the Post-Communist Transformation? Normalization or Imagining Utopia? *European Journal of Social Theory*, Vol. 12, No. 3, 321-336 (2009)
- Roeder, Philip G. (1994), "Varieties of Post-Soviet Authoritarian Regimes," *Post-Soviet Affairs*, 10, 1:61-101, January-March 1994.
- Qian Yingy and Chengang Xu, (1993): "Why China's Economic Reforms Differ: the M-form Hierarchy and Entry/Expansion of the Non-state Sector" *Economics of Transition*, No. 2: 135-170,
- Sachs, Jeffrey and Wieng Thye Woo, (1997): "Understanding China's Economic Performance" NBER Working Paper, (October) N.5935
- Schelkle Waltraud (2000) "*Paradigms of Social Change: Modernization, Development, Transformation, Evolution*" (Campus Verlag-Frankfurt/New York St. Martin's Press-New York)
- Tong, Yanqi, (1997): *Transitions from State Socialism. Economic and Political Change in Hungary and China* (London, Boulder, New York, Oxford, Rowman and Littlefield Publishers Inc.)
- Walder, Andrew G. (1995): "China's Transitional Economy: Interpreting its Significance" *The China Quarterly* 143: 963-79
- Woo, Wing Thye, (1998): "Why China Grew" in *Emerging from Communism: Lessons from Russia, China, and Eastern Europe* ed. Boone, Peter, Stanislaw Gomulka, and Richard Layard (MA, London: MIT Press Cambridge), 153-182
- World Bank, (1996): World Development Report, From Plan to Market, (Oxford U.K., Oxford University Press)
- Wu, Yu-Shan, (1994): *Comparative Economic Transformations: Mainland China, Hungary, the SU and Taiwan* (Stanford: Stanford Univ. Press)

## Discussion Papers published in 2011

Mihályi Péter: Utolérési kísérletek Magyarországon, 1870-2030. MT-DP 2011/1

Zsolt Darvas - Jean Pisani-Ferry: The Threat of 'Currency Wars': A European Perspective. MT-DP 2011/2

Zsolt Darvas: Beyond the Crisis: Prospects for Emerging Europe. MT-DP 2011/3

Barnabás M. Garay - András Simonovits - János Tóth: Local Interaction in Tax Evasion.  
MT-DP 2011/4

Maria Csanadi: Varieties of System Transformations and Their Structural Background Based on the IPS Model. MT-DP 2011/5

Mária Lackó: The Poor Health Status of the Hungarians; Comparative Macro-Analysis of the Likely Explanatory Factors on Hungarian and Austrian Data, 1960-2004. MT-DP 2011/6

Fazekas Károly: Közgazdasági kutatások szerepe az oktatási rendszerek fejlesztésében. MT-DP 2011/7